



PATENT ABSTRACTS OF JAPAN

(11) Publication number: 08260176 A

(43) Date of publication of application: 08.10.1996

(51) Int. Cl. C25B 9/00

(21) Application number: 07090287

(22) Date of filing: 23.03.1995

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(54) HIGH-PURITY GASEOUS HYDROGEN AND OXYGEN GENERATOR

(57) Abstract:

PURPOSE: To enhance the reliability and safety of the generator by detecting the vertical position of a permanent magnet provided to a float and controlling respective water discharge valves in accordance with the detection signal.

CONSTITUTION: Pure water is supplied to a water electrolytic cell 1 from a pure water producer 6 through a pipe 7, a DC current is applied between the electrodes in the cell 1 from a power source 2, and the pure water is electrolyzed. The oxidized gas thus generated is introduced into a first gas-liq. separator 8 through a pipeline 9 and separated into pure water and gaseous oxygen. Hydrogen is introduced into a second separator 10 through a pipeline 11 and separated into pure water and hydrogen. A float moving up and down with the water level is provided in the separators 8 and 10.

A permanent magnet is furnished to each float, and the vertical position of the magnet is detected with a detection means provided outside the separators 8 and 10. Water discharge valves 30 and 31 are controlled by a water level controller 24 in accordance with the detection value from the detection means. The exertion of a large differential pressure on a water electrolytic membrane as the water is discharged is prevented.

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